MINIMIZING RISKS TO CHILDREN IN LICENSED CHILD CARE SETTINGS: A LITERATURE REVIEW AND STATE SURVEY

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It is my hope that the result accurately reflects their views and that together with information from other sources, findings reported here will prove to be useful to licensors in Washington State and to all others who strive to reduce the risk of harm to children.

Sincerely,

Judith Colbert
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EXECUTIVE SUMMARY

Child care licensing laws are primary mechanisms for reducing risks to children. In reviewing the literature and considering how licensing agencies can minimize risks to children in child care settings, this report largely focuses on risks to children from injuries. It reviews injury data which reveal, among other facts, that falls are a major cause of injuries to children 1-4 years of age in Washington State and in the US. These data also expose differences in injury incidence and patterns between licensed centers and homes. Such differences should prompt different regulatory approaches.

Exploration of the causes of injury suggests that they are complex and that a single injury can have a direct, underlying and indirect cause. Examples of important indirect causes are lack of supervision and lack of caregiver education and training. In addition to definitions for the National Center for Injury Prevention's WISQARS, other models for exploring causal elements include the Haddon Matrix and the Spectrum of Prevention. Both take an ecological approach to the causes of injuries and strategies for prevention.

A review of the literature related to child injuries supports both the data and research tools that point to the complexity of injury causes and contexts. The literature ranges widely among direct causes of harm to children and includes studies that find solutions to reducing risks in regulatory measures.

Following a review of the literature and research on the web, five states were initially selected as potential sources of exemplary licensing systems. In the end, licensing agencies in three states – Indiana, Oklahoma and Tennessee – responded to a detailed questionnaire. Interviews were conducted with licensors and other key informants in those three states and in the State of Michigan. Information about the fifth state, Utah, was gathered from the Internet.

Results of these investigations indicate that exemplary licensing systems are highly integrated with strengths in all areas. System elements are balanced, complementary and interconnected, and responsive to current needs. A summary of each state's response is included below. The Questionnaire and edited responses are attached as appendices.

In response to the three questions posed for this project, evidence gathered during this project suggests a relationship between rules and licensing systems. Respondents stressed that an exemplary licensing system should include effective rules, competent well-trained licensors, sufficient staff to carry out frequent inspections, and effective enforcement with consequences. States that are most likely to have rules that minimize risk, have an effective rule formulation process that includes research and strategies to secure provider "buy-in" to the rules, responds to key areas of observed risk, and incorporates research, especially research that measures rules against benchmarks such as *Stepping Stones.* Specific sections that seem most important relate to supervision and playgrounds, identified by both researchers and practitioners as key elements in the reduction of risk. Analysis of specific examples illustrates that rule formulation and enforcement in these areas pose distinctly different problems for licensing agencies.

Recommendations

What specific rules should Washington State emphasize in order to minimize risks to children?

Based on evidence from research and from practice elsewhere, Washington State should emphasize the following rules to minimize risks to children:

- **Rules related to supervision;**

  Deficiencies in supervision are the indirect cause of injury and other forms of harm in a wide range of areas. Strengthening rules related to supervision is therefore likely to reduce risk of harm from a number of sources. Consideration should also be given to strengthening rules in areas that affect supervision such as staff:child ratios, and the amount of space and equipment available for the children.

- **Rules related to provider education and training;**

  Deficiencies in provider education and training are the indirect cause of injury and other forms of harm in a wide range of areas. Strengthening rules these areas is therefore likely to reduce risk of harm from a number of sources. As far as possible, training should be targeted to areas of observed need (for example, areas of frequent or repeated non-compliance).

- **Rules in response to observed need**;

  Over time, observation and investigation, and data collection and tracking will reveal specific areas where additional rules are needed or where existing rules should be strengthened. Reasons for rule changes should be documented and supported with data.

- **Rules in response to findings from comparisons with established benchmarks**;

  In view of liability issues, in particular, it is important to ensure that rules are comprehensive and embody best practice as determined by experts in specific fields. To achieve that goal, Washington State should compare its rules to an established benchmark, such as *Stepping Stones*, and delete, revise or formulate rules based on the results.

- **Rules in response to trends in national and state data; and**

  Washington State should be aware of data on injuries collected at national, state, and local levels and strengthen its rules, where necessary, in light of that data.

- **Rules in response to the literature and specific research findings.**

  Researchers are constantly providing new information, including information that should be reflected in rules and licensing practice. For example, the recent shift in terminology from “SIDS” to “safe sleep” may mean that some rules need to be reviewed or deleted and new ones substituted in their place.

What specific aspects of our licensing system should Washington State emphasize in order to minimize risks to children?

- **Planning and Development**

It is evident from the licensing systems analyzed for this report that the systems that seem to function most effectively are highly integrated with strengths in all areas. For example, in such systems, findings from licensing inspections and complaint investigations become the focus of the training area, and incentive programs are seen not only as provider reimbursement programs but also as sources of interim enforcement strategies and as vehicles for technical assistance and training.

It is recommended that Washington State assess the current structure and functions of its licensing unit and, where appropriate, take steps to ensure that all elements are equitably balanced and supportive of each other. For example, training specialists should collaborate with licensors to ensure that providers have access to training in areas where records show a high incidence of non-compliance or complaints.

It is recommended that Washington State further investigate the possibility of establishing an incentive program, which includes tiered reimbursement and/or a form of quality recognition. In considering this possibility, the State should explore the impact of such a program on all aspects of its licensing system, including its potential role in enforcement, and training and technical assistance as well as provider reimbursement. The State should also be mindful that, on the one hand, effective enforcement programs must be well-resourced and require significant expenditures, and on the other, they appear to have value and lead to positive results as shown in recent research.

- **Collaboration and Outreach**

It is also evident that exemplary licensing systems have links of varying degrees with many external organizations. They draw on expertise from universities, resource and referral agencies, non-profit organizations, and actively involve them in regulatory processes, for example, as providers of training, researchers or advisors during rule formulation.

It is recommended that Washington State examine its current links with external organizations to see if it is fully realizing their potential benefits. The State should also consider establishing other links, as appropriate. For example, the State might develop a relationship with the Harborview Injury Prevention and Research Center (HIPRC) in Seattle. HIPRC is a "Center of Excellence" or Injury Control Research Center (ICRC) funded by the US Centers for Disease Control (CDC). HIPRC might provide the State with valuable resources and advice related to injury prevention and control and might also carry out research on injuries in licensed child care settings. Since it is a collaborative effort between Harborview Medical Center and

the University of Washington Schools of Medicine and of Public Health and Community Medicine, a link with HIPRC has the potential to extend the State's associations even further. Additionally, the State might also consider establishing or strengthening links with area universities and with non-profit organizations, such as the SIDS Foundation of Washington, Washington State Child Death Review Program and the National Maternal and Child Health Center for Child Death Review, following the Michigan model described in this report.

- **Rule Formulation**

With a view to the next round of rule revisions, it is recommended that Washington State carry out or commission research on the effectiveness of its current rule and use findings to help shape future rule changes.

Given the significant burden of liability that Washington carries, it is more specifically recommended that Washington commission a systematic and documented comparison with a national benchmark, such as the National Standards as they are incorporated in *Stepping Stones,* to provide measurable evidence that Washington is taking steps to prevent harm to children in keeping with the advice of nationally recognized experts.

Distinctions, between Washington's rules and those of the other states discussed in this report, point to revisions that might make Washington's rules more effective. For example, "supervision" is mentioned from time to time throughout Washington's child care center rule, but it is not defined and no one section focuses on supervision issues. In fact, references to supervision are often subordinated to other topics, as illustrated in Section 5020: "How do I maintain a safe environment?" where (c) "Adult supervision at the exits" is grouped with requirements related to bells and alarms that may, in fact, undercut the importance of supervision. In contrast, the structure of Washington's child care homes rule, is similar to Oklahoma's child care center rule which is described elsewhere in this report as "clear and comprehensive." Both include a definition of supervision as well as a section devoted to the topic. Section 1360 of Washington's rule includes the heading, "What am I required to do to supervise children?" One major difference between both of Washington's rules and those of other states is that they are expressed in the first and second persons ("I" and "You") and use the verb "must." Rules in other states are written in the third person ("the caregiver" or "licensee," for example) and use the more formal "shall." Constant repetition of "you must" and especially "you must not" may seem oppressive to some providers.

When formulating rules, it is recommended that Washington State consult with its legal department and review rules from other states to ensure that Washington's rules are expressed as clearly as possible, in a format that helps providers understand what they are required to do to achieve compliance.

- **Technical Assistance and Training**

Two of the licensing systems explored for this study have well-established provider incentive programs within their licensing systems. As a result, they are able to offer providers two streams of technical assistance and training. In addition, the incentive program motivates providers to not only comply with licensing requirements, but also take advantage of available training opportunities. More research is needed to determine whether it is necessary to implement an incentive program to achieve these benefits.

It is recommended that Washington State ensure that providers have significant, ongoing training opportunities, as well as opportunities for technical assistance to help them achieve and maintain compliance with licensing requirements. Results should be tracked to determine whether training has reduced the incidence of injury, non-compliance, or substantiated complaints.

- **Provider Relations**

Both Oklahoma and Tennessee reported initiatives to encourage providers to be self-reliant and pro-active as self-enforcers of licensing requirements. Oklahoma offers providers free training in self-assessment and evaluation, and gives members of the state child care association the opportunity to self-report non-compliance, while Tennessee reports success with its voluntary suspension option. Again, these states may be building on the motivation provided by their incentive programs.

It is recommended that Washington State implement initiatives to encourage providers to be accountable for their own compliance. For example, the State might offer providers training in assessing their own programs by illustrating how to use licensing checklists between inspections to monitor their own compliance, possibly following Oklahoma's model. The State might also encourage self-reporting of non-compliance as is available in Oklahoma, or institute voluntary suspension as is an option in Tennessee.

- **Technology, Data Collection and Tracking**

Of the states surveyed, to date, only Indiana appears to have embarked on field data collection and the use of the Internet as a source of licensing information. Others are working towards those goals. Although at least one study suggests that the posting of information is beneficial, too little information was collected to make recommendations in this area.

On the other hand, it is clear from the state survey, in particular, that there are benefits from placing greater emphasis on data collection and tracking. In Michigan, where an excellent system was in place for many years, actions taken based on data analysis appear to have been successful in reducing rates of injury and non-compliance. In working with national and state child death review boards and, indeed, influencing their development,

Michigan tapped into larger pools of expertise that reportedly helped licensors refine both data collection and investigative techniques.

It is recommended that Washington State take steps to acquire and use data related to licensing functions, including data that tracks the effects of changes to their licensing system.

It is further recommended that Washington establish links with national or state-based organizations with similar goals and expertise in the field of data collection for the purpose of risk reduction. For example, the State might benefit from links to the National Maternal and Child Health Center for Child Death Review and/or the Washington State Child Death Review Program, following the Michigan model described in this report.

- **Investigations**

It is recommended that Washington State take steps to ensure that licensors are trained to carry out thorough investigations of serious incidents, complaints and significant non-compliance, using separate investigation checklists if necessary.

It is further recommended that Washington ensure that the results of all investigations are tracked and not only contribute to enforcement decisions, but also help shape technical assistance and training activities, as well as rule formulation. Data should be tracked over a period of years so that patterns emerge which can be used to guide enforcement strategies.

- **Licensor Education and Training**

Both Oklahoma and Tennessee require their licensors to have at least a bachelor's degree to qualify as a licensor and Oklahoma, in particular, offers its staff significant education and training opportunities.

It is recommended that Washington State ensure that pre-service qualifications for its licensors are as high as possible. Washington should also strengthen and support its licensing staff by offering licensors as many education and training opportunities as possible. For example, the State might follow Oklahoma's example and help licensors acquire advanced degrees in early care and education and related fields.

- **Licensor Workload and Inspections**

Both Oklahoma and Tennessee reported their licensors made more than one licensing inspection per year. Tennessee also reported that the agency had sufficient staff to achieve its goals. In contrast, Indiana reported making only one visit per year and a researcher commenting on its system in 2001, noted that the agency was significantly understaffed.

It is recommended that Washington State maintain staffing levels to permit licensors to visit facilities more than once a year, and often enough to ensure ongoing compliance with licensing requirements and provide technical assistance as necessary. For example, the State might consider following Tennessee's example and pro-rate the required number of inspections according to established criteria. In Washington's case, the number of inspections might be determined according to levels of non-compliance, numbers of substantiated complaints and other such indicators. The State might also build on Utah's model and use similar criteria to identify facilities that would receive a combination of announced and unannounced inspections to ensure opportunities for intensive technical assistance and follow-up.

INTRODUCTION

State regulation of child care programs is designed to reduce the risk of harm to children. As Morgan (1996) points out, children in child care are at risk of harm from at least four sources: the spread of disease, the risk of fire in buildings and other building safety hazards, the risk of injury and the risk of developmental impairment. Child care licensing laws are primary mechanisms for reducing risks to children from injury and developmental impairment, even as they acknowledge the role of other laws and government agencies at all levels that also address safety issues, especially as they relate to health and building safety.

In reviewing the literature and considering strategies for reducing the potential for harm to children, this report largely focuses on the risk of injury. When describing exemplary systems, practices and rules, the focus broadens to include a wider spectrum of risks in child care settings. Injuries, fatal and non-fatal, are more easily identified and quantified than other sources of harm, and have been discussed in the literature. The causes of injury, like factors leading to developmental impairment, are more complex and, with measures of prevention, are likely to be tracked to one or more areas, both within programs themselves and in the contexts in which they are offered and regulated.

Similarly, while some regulatory strategies and rules address specific risks directly (for example, requiring safety gates across stairways), others achieve broader goals and have an indirect effect on particular circumstances (for example, requirements for staff or provider training). As a result, the report attempts a broad assessment of the elements of exemplary regulatory systems that provide contexts for specific licensing rules.

Attempts to compare regulatory systems and their elements almost immediately encounter even greater degrees of complexity. Each system has arisen from a specific and very distinctive context and, in turn, creates its own particular environment. Differences from state to state present difficulties for researchers collecting and interpreting data, as Currie and Hotz (2004) describe in their national study of unintentional childhood injuries and the effects of regulations (pp. 39-40). Similarly regulatory enforcement itself is complex. Styles and activities vary from state to state, and within states, from agency to agency. Kagan (1994) has identified four sets of factors that can simultaneously influence agency action: regulatory legal design, the agency's social and economic task environment, its political environment, and its internal leadership. The problem, as he sees it, is "to analyze the relative weight of each under varying circumstances" (p. 391).

Against this backdrop, the paragraphs that follow provide a context for a response to the three questions posed by the State of Washington:

- Is there a relationship between licensing systems and rules being enforced?
- Which states have rules that seem more likely to reduce risks to children?
- What specific sections of these rules are important?

All provide background for recommendations for further action to minimize risks to children.

Resources

Currie, J.M. & Hotz, J. (2004) *Accidents Will Happen? Unintentional Injury, Maternal Employment, and Child Care Policy, Journal of Health Economics*, 23, pp. 25-59.

Kagan, R. (1994) "Regulatory enforcement." *Handbook of Regulation and Administrative Law*, ed. D. Rosenbloom & R.Schwartz. pp. 383-422.

Morgan, G. 1996. *Regulation and the prevention of harm*. Accessed March 29, 2005, on the World Wide Web at http://www.nara-licensing.org/morgan.htm

PART 1: INJURY CAUSES AND CONTEXTS

At the outset it is important to determine the leading causes of injury and establish definitions, to provide focus for the literature search, and to identify areas where licensing rules are likely to be most effective in reducing harm to children. Similarly, pursuing understandings of the "causes" of injury and the contexts in which injury and prevention occur provides bases for not only identifying important rules, but also determining the role and scope of licensing systems and their contexts.

Causes

Determining the leading causes of fatal and non-fatal injuries in child care settings is not easy. Data collection at national and state levels does not generally reflect the location in which incidents occur. Table 1 includes injury data from three sources. Data from the State of Washington identifies the five leading causes of injury death and injury hospitalization, 1999-2001, cited as a rate per 100,000 children of the same age.
The National Center for Injury Prevention and Control (NCIPC) at the National Centers for Disease Control and Prevention provides data from WISQARS (Web-based Inquiry Statistics Query and Reporting System) identifying the leading causes of fatal and non-fatal unintentional injuries by age, as a percentage of total injuries. These data relate to the entire population of children age 1- 4 years in the US and do not isolate incidents that occurred in child care settings.

The most comprehensive examination of injuries in child care settings to date has been carried out at New York City University by Wrigley and Dreby (2005). Using a unique data set collected by their own research team, they created a profile of fatal and non-fatal injuries in both child care centers and family homes. The results of their investigation are also included in Table 1, prioritized according to both the type of child care setting and specific injury, cited according to the number of injuries found.

Given that time frames, data collection and citation methods do not match, conclusions based on comparisons in this overview must be regarded with caution. None the less, this information from these various sources does point to key causes of injuries and suggest where preventive strategies might be directed with the greatest effect.

The data and accompanying analyses in the Wrigley and Dreby study also point to differences in accident types in centers and homes. These differences provide licensors with further clues as to how preventive efforts, including specific rules, might best be targeted. They may also provide information about the effectiveness of existing rules. For example, according to data from CDC and Washington State as well as information from the study by Wrigley and Dreby of incidents in child care homes, falls are the leading cause of injuries requiring hospitalization. On the other hand, Wrigley and Dreby found that for child care centers, falls were fifth most common cause, behind motor vehicle, scald/burn, struck by/against and drowning. These findings suggest that regulations in child care centers may prevent falls, as they were designed to do, and that increased effort should be directed toward preventing falls in homes.

Table 1: Comparison – Leading Causes of Injuries

COMPARISON – LEADING CAUSES OF INJURIES								
	WA -1999-2001		**CDC – 2001-02**		**WRIGLEY**			
	Ages 1-4	*** R**	**Ages 1-4**	**%**	**All Settings**	*** N**	**Centers**	**Homes ****
*** rate per 100,00**			*** percentage of all injuries in age group**		*** number ** includes in-home and regulated family child care**			
FATAL INJURIES								
1	MV Occupant	2.3	MV-Traffic	32.5	Drowning	132	Left in V	Drowning
2	Drowning	2.0	Drowning	27.2	Fire	102	Drowning	Fire
3	MV Pedestrian	1.7	Fire/Burn	13.6	Suffocation	101	MV	Suffocation
4	Suffocation	1.5	Suffocation	8.3	Undetermined	68	Undetermined	Undetermined
5	Fire	0.9	Pedestrian, Other	4.9	MV	46	Suffocation	Strangulation
6			Natural Environment		Strangulation	44	Strangulation	MV
7			**Fall**		Left in V	39	Struck By/Against	**Fall**
8			Poisoning		**Fall**	17	**Fall**	Firearm
9			Struck By/Against		Firearm	13	Poison	Left in V
10			Other		Poisoning	11	Fire	Poison
					Struck By/Against	10	Animal Bites	Animal Bites
					Animal Bites	7	Scald/Burn	Struck By/Against
					Burns	4	Firearm	Scald/Burn
			INJURY REQUIRING HOSPITALIZATION / NONFATAL INJURIES					
1	**Fall**	53.1	**Fall**	41.9	**Fall**	72	MV	**Fall**
2	Poisoning	21.3	Struck By/Against	18.9	Fire	56	Scald/Burn	Fire
3	Burns	19.3	Other Bite/Sting	6.0	MV	55	Struck By/Against	Animal Bites
4	Natural Causes	9.8	Foreign Body	5.3	Scald/Burn	52	Drowning	Scald/Burn
5	Struck By/Against	9.7	Cut/Pierce	4.5	Animal Bites	41	**Fall**	Drowning
6			Poisoning		Drowning	40	Fire	Struck By/Against
7			Overexertion		Struck By/Against	31	Undetermined	Firearm
8			Fire/Burn		Firearm	14	Poison	Poison
9			MV Occupant		Poison	14	Animal Bite	MV
10			Unknown		Undetermined	10	Suffocation	Undetermined
			Others		Suffocation	8	Firearm	Suffocation
					Strangulation	6	Strangulation	Strangulation
					Left in V	1	Left in V	Left in V

13/06/05

Overall, Wrigley and Dreby found a higher number of both fatalities and injuries requiring medical care in homes (including both family day care and in-home care) when compared to child care centers, with the difference being particularly striking with respect to fatalities. These findings are consistent with information from the critical incident reports from Washington State's DCCEL for the period 01/13/2004 through 04/15/2005 indicating that the Department received 73 reports of incidents in licensed homes, 30 in licensed centers and two in unlicensed settings. Nine reports of serious injury related to injuries in licensed homes as compared with five in licensed centers. At the same time, seven deaths from SIDS were reported in licensed homes and none in centers or unlicensed facilities. With respect to other deaths, three were reported in licensed homes and only one in licensed centers.

Again, differences in sources and other factors mean that care must be taken when interpreting these data. What seems clear, however, is that the information from Washington State supports findings from the study by Wrigley and Dreby (2005) that the risk of injury and, especially, death is substantially higher for children in home settings than in center-based care. Accordingly, their conclusions may be of specific relevance to Washington and may assist in helping to both explain and prevent injuries to children in state licensed facilities.

Those conclusions, roughly that children may be somehow protected by the bureaucratic nature of licensed child care centers, while the lack of support for lone caregivers in less formal child care homes may put children at additional risk, suggest that effective regulatory prevention begins at the administrative level, with recognition by regulatory agencies, first, of the need to regulate home-based care and, second, of distinctions in the two forms of care.

Like Wrigley and Dreby, Anne Turner, director of licensing for the State of Tennessee, sees "different types of risk" in homes and centers and makes that distinction in terms of how they are defined and how they occur (personal communication). She points to a higher risk of abuse in homes and says that regulators must be prepared to do a "different type of analysis of each child care setting."

In attempting to reduce risks in home settings, regulators often focus on how rules are administered and enforced. In Turner's eyes, "risks are associated with numbers not the setting" and in Tennessee, a "home" is not necessarily a personal residence, but is a facility that accepts fewer than 12 children. Safety plans include family members, as necessary. Turner draws an analogy between her agency's practice and that of fire departments where assessments are based on the type of building and the number of occupants.

Different types of care lead to different administrative models all designed to reduce risks to children and make best use of regulatory resources. Turner says that Tennessee formerly contracted the monitoring of individual homes to outside agencies but found it difficult to keep "on top" of the agencies. As a result of that difficulty and for financial reasons, the agency has now moved the function "in-house." In Ontario, Canada, by

statute and regulation, licensed "private-home day care agencies" have been monitoring individual homes for over 20 years, using home visitors as prescribed in the regulation (Ontario, *Day Nurseries Act*). In response to current concerns in the US, about both the need for family child care and the need to structure such care appropriately that the Child Welfare League of America (CWLA, n.d.) has convened a task force to develop written materials and explore issues related to family child care systems.

Definitions

As noted earlier, one reason that comparisons of injury data are "problematic" is the use of varying definitions of specific injury causes. To assist in the interpretation of its data, the NCIPC provides a "Help" section that includes definitions of injury types and a discussion of the cause or "mechanism" which resulted in the injury. For example, NCIPC defines a fall as "an injury received when a person descends abruptly due to the force of gravity and strikes a surface at the same or lower level."

Direct and Underlying Causes

It is important to examine the cause of an injury closely to determine the precise element that most likely triggered the incident. For example, as illustrated in the following analysis from NCIPC's WISQARS™ site, the "direct cause" of an incident can be different from the "underlying" cause, both of which may have to be addressed in licensing rules:

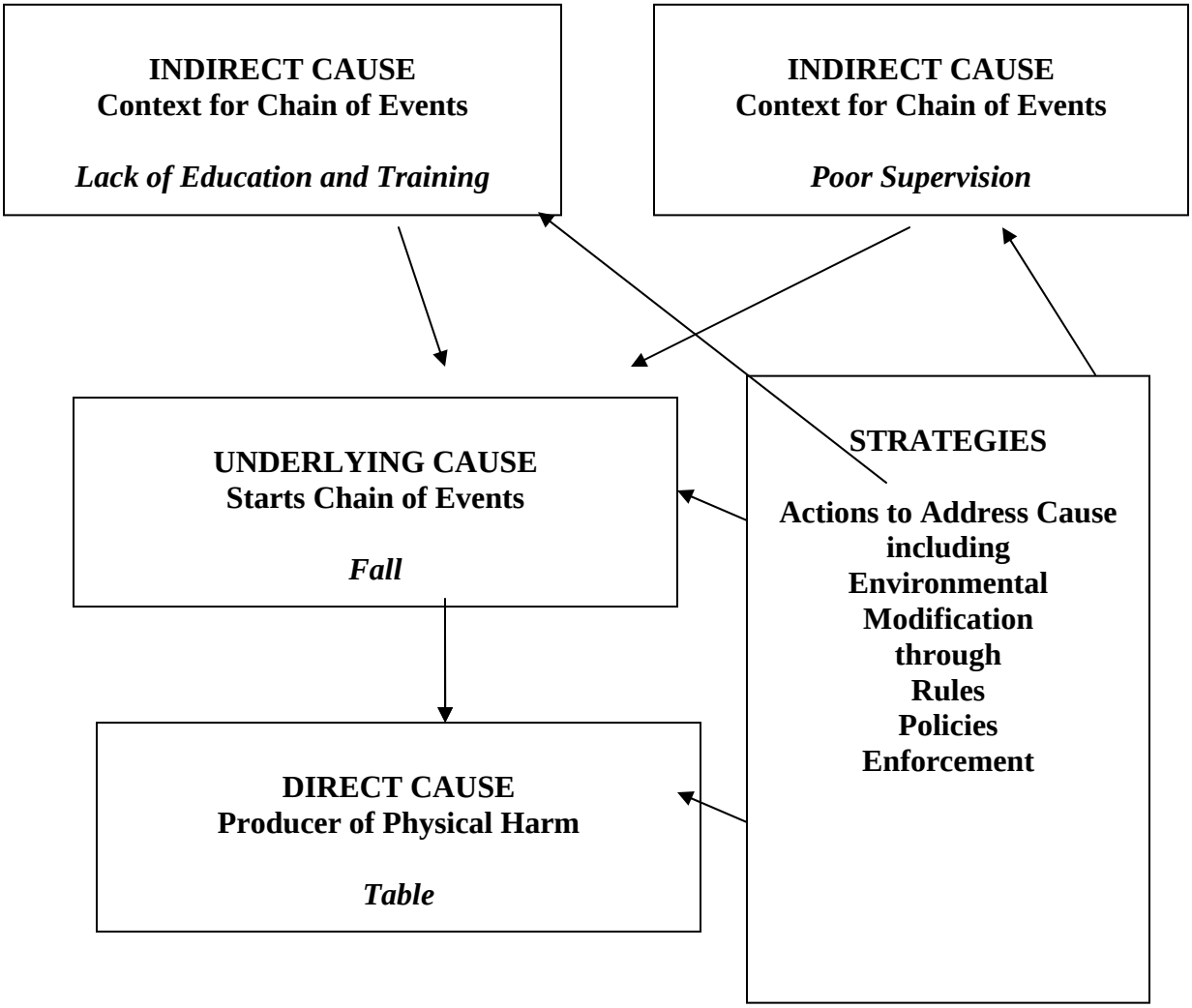
> *The cause, or mechanism, of injury is the way in which the person sustained the injury; how the person was injured; or the process by which the injury occurred. For this system [WISQARS™], the cause of injury is the* ***underlying cause,*** *rather than the direct cause. The underlying cause is what starts the chain of events that leads to an injury. The direct cause is what produces the actual physical harm. The underlying and direct causes can be the same or different. For example, if a person cuts his or her finger with a knife, the cut is both the underlying and direct cause. However, if a child falls and hits his head on a coffee table, the fall is the underlying cause (the action that starts the injury event), and the contact with the table is the direct cause (the action that causes the actual physical harm).*
>
> *This system uses the underlying cause rather than the direct cause of injury because the underlying cause is more important to prevention efforts. If we can prevent the underlying cause, we can stop the injury from occurring in the first place. In other words, without the underlying cause, there would be no direct cause. Reporting nonfatal injury data by the underlying cause of injury is consistent with how fatal injury data are reported. This way, users receive comparable fatal and nonfatal injury data for a specific cause (e.g., fall, poisoning, cut/pierce, etc).*

(*Definitions for WISQARS™ Nonfatal*, "4.2.1 Data Element: Cause (Mechanism) of Injury" at http://www.cdc.gov/ncipc/wisqars/nonfatal/definitions.htm)

Indirect Causes

For regulators the issue is not so simple. Both underlying and direct causes are important and must be addressed with strategies. In addition, for the purposes of this report, it is also important to consider what may be termed "indirect causes." Examples of indirect causes include lack of supervision or lack of caregiver training. Both help to characterize the injury context and provide targets for preventive strategies. When devising strategies to prevent harm, as in developing regulations, regulators must address all causal layers. Figure 1 illustrates relationships between and among causal elements and strategies.

Figure 1: Causal Elements of Injury



Complexity and Context

Attention to the complexity of the injury situation is not new. For some years, investigators have attempted to capture the complexity of injuries using the Haddon Matrix, a scheme developed in the 1960s by William Haddon, a physician who advocated a public health approach to injury. He developed the matrix to analyze injuries from automobile accidents. Haddon's approach shifts the focus from the individual who might simply be "accident prone" at a given moment, to the mix of elements associated with the incident over time. His initial model included the host (the driver), the agent (the vehicle) and the environment at three different periods in time: before, during and after the incident. This matrix has since been used to analyze and develop preventive measures for many types of injury. For example, Grossman (2000) uses it effectively in his historical examination of child and adolescent injuries, while Runyan (1998) sees potential for expanding it to include strategies for decision-making. Table 2 is adapted from a similar table in Runyan's article where she illustrates how the matrix can be applied to the problem of residential fires caused by cigarettes igniting upholstered furniture (p. 302).

The model is a potential tool for regulators. Table 3 presents a further adaptation that identifies subsets of the physical and social environments appropriate to licensing situations. Use of such a matrix could assist licensors in their attempts to determine the causes of accidents – and non-compliance, in general – and identify where to apply preventive strategies.

Table 2: Haddon Matrix Adapted from Runyon Example

HADDON MATRIX – RUNYON EXAMPLE				
	Host (children in home)	Agent/Vehicle (cigarette, matches, and upholstered furniture)	Physical Environment (home)	Social Environment (community norms, policies, rules)
Pre-Event (before fire starts)	Teach children not to play with matches.	Redesign cigarettes so they self-extinguish.	Lower flammability.	Promote smoking cessation.
Event (fire)	Teach children how to respond in a fire.	Redesign furniture so that materials are less toxic and are flame resistant.	Install smoke detectors, increase exits etc	Pass laws requiring smoke detectors etc
Post-Event (after child injured in fire)	Provide first aid and CPR.	Design heaters so they shut off easily.	Use less toxic building materials.	Increase available burn treatment centers.

Table 3: Haddon Matrix Adapted for Regulatory Administration *

HADDON MATRIX – POSSIBLE ADAPTATION FOR REGULATORY ADMINISTRATION							
	Host	**Agent/Vehicle**	**Physical Environment**		**Social Environment**		
	Child on play equipment in setting	**Equipment above ground level, table and ground surface**	**Center – climber in indoor or outdoor play area**	**Home – platform/raised space in indoor or outdoor play area**	**Licensing System – Rules, policies, inspections**	**Families**	**Social and community norms,**
Pre-Event (Before Fall)	Unsafe and unsupervised play on equipment several feet above the ground	Equipment not age-appropriate Table and other items in fall zone Surface in fall zone not impact absorbing	Climber not age appropriate and not well-designed for child play Fall zone cluttered with items Ground surface not impact absorbing	Platform in play area not age- appropriate and not designed for group child care Area around platform cluttered No identified fall zone and surface not impact absorbing	Licensor training in assessing play equipment Rules and policies re staff supervision, play equipment and play space, and staff/provider training	Parent instructions to child re safe play Regular parent checks of the safety of setting and reports of concerns to licensing	Support for safety rules and expenditures for upgrading play areas Support for laws to ensure the safety of consumer products
Event (Fall)	Child loss of balance Child susceptible fall injury	Energy exchange – child's body and table and, ultimately, surface	Furniture in the way of the child Fall zone surface too hard		Rules re emergency response	Parent permission for medical services	Laws re safe equipment manufacture installation, and testing
Post-Event (After Fall)	First aid and medical attention for child	Effects of fall – cut from contact with the table and injury from energy exchange with table and hard surface	Age appropriate equipment designed for group child care in center Safe play surfaces.	Age appropriate equipment designed for safe use by the enrolled children in the home. Safe physical spaces and play surfaces in the home	Rules and policies re regular play area maintenance Regular licensor inspections and sanctions for non-compliance	Emergency contact information and medical history.	Availability of medical services

A similarly ecological perspective is apparent in the "Spectrum of Prevention" model adopted by the Kids' Plates program in California. The Spectrum of Prevention model was created by Larry Cohen while at the Contra Costa County Health Services Department, Prevention Program, and based on the work of Dr. Marshall Swift at Hahnemann College, Philadelphia, PA. Described on the website of the Prevention Institute (n.d.), the Spectrum focuses on the "broader efforts which together produce greater change." It includes six levels:

6. Influencing Policy Legislation
5. Changing Organizational Practices
4. Fostering Coalitions and Networks
3. Educating Providers
2. Promoting Community Education
1. Strengthening Individual Knowledge and Skills.

Under the Kids' Plates program, drivers can purchase special motor vehicle license plates and, of the funds raised, 25% are directed to community projects aimed at the prevention of child and adolescent unintentional injuries. Organizers offer the Spectrum of Prevention model to communities applying for grants, based on the idea that projects will be more successful when they fit together with other community initiatives. They also offer the model because of the complexity of injuries:

Since injury problems are often complex, the best solutions are usually comprehensive. It is more likely that prevention activities will work when an issue is addressed at all six levels of the Spectrum – as the levels fit together and build upon one another.

This advice is instructive for regulatory agencies seeking to reduce risks to children. It invites them to consider multiple strategies involving not only their own agency, but also organizations and individuals in the larger community. For example, when a motorcycle helmet law was passed in California, one county set up training for traffic reporters on how to incorporate the importance of the new law in their radio and TV reports. Calling this a "powerful strategy" for reaching the public, the authors note that while the training focused on educating providers (level 3), as a result of that training the reporters would both educate the community (level 2) and influence policy (level 6).

Resources

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Turner, A. (2005). Personal communication.

Wrigley, J. & Dreby, J. (2005) *The brighter side of organizations: Fatalities in U.S. child care 1985-2003.* Paper presented at the Annual Meeting of the Eastern Sociological Society, March 1, 2005, Washington, D.C.

PART 2: LITERATUE REVIEW

A review of selected literature confirms the complexity and varied nature of injuries to children. It begins with items of general interest or that provide an overview of the topic and then proceeds to consider studies that largely address specific sources of injury or harm to children in relation to the three causal layers of injury identified above – indirect, underlying and direct – with a view to identifying strategies for action at each level. It closes with a brief discussion of titles with a regulatory focus.

Overview

As is already apparent, injury data as well as general information about injuries is available from the Centers for Disease Control as well as regional and local Injury Prevention Centers. *Caring for Our Children: National Health and Safety Performance Standards" for Out-of-Home Child Care Programs* (National Standards) remains the most definitive source of information about preventive measures appropriate to child care settings. To help licensing agencies and others use the National Standards most effectively, experts were asked to rate the risk of harm to children and staff in child care settings for non-compliance with specific standards. The standards selected appear in a companion document, *Stepping Stones to Using* Caring for our children (2003). Of interest at this point is the analysis of child care safety regulations prepared by Runyan et al. (1991) just before the first edition of National Standards was published in 1992. On the one hand, the analysis shows how important the Standards have become to the regulatory process, but on the other, it highlights problems that persist today, including the need for more study into licensing processes.

Other sources of safety data and information include the Consumer Product Safety Commission (1999) which carried out a study of safety hazards in child care settings and the National Program for Playground Safety (2004) which provides training and resource materials and also publishes research in the form of playground "report cards" assigning grades to playgrounds in schools, day cares and public parks by state and for the US as a whole.

A major study of fatalities in US child care, carried out by Wrigley and Dreby and discussed above, makes two major contributions to the field. It is the "first systematic national study of fatalities in child care" and also shows that "the social organization of care strongly affects patterns of fatalities and injuries in child care." Descriptions of their study (which is still in press) appear in the presentation summaries prepared by Wrigley for the 2003 and 2004 annual seminars of the National Association for Regulatory Administration.

In 2000, the Packard Foundation drew national attention to risks to children with the publication of *Unintentional Injuries in Childhood,* the Spring-Summer issue in its *Future of Children* series. Among the facts revealed in that publication is the shocking statistic that unintentional injuries in 1996 alone will eventually cost society $81 billion.

Other studies are national in scope but have a narrower focus. Phelan et al. (2001) carried out what they have identified "the first national survey to identify the school (including daycare) as the primary location of playground injuries." They estimate that falls from playground equipment account for over 150,000 visits by children to hospital emergency departments.

Causes

Many investigate the underlying causes of injury by exploring direct causes in more detail. For example, Pickett et al. (2003) analyzed data from the Canadian Hospital Injury Reporting and Prevention Program in Kingston, Ontario, and found 990 cases of injury to infants less than 12 months of age. They identified three leading – and what in some cases may be called "underlying" – causes: falls (61%), ingestion injuries (6.6 %) and burns (5.7%). More specifically, they identified the direct causes. For example, common falls were from furniture (37%), being dropped (15.2%), in car seats (12.1%), down stairs (10.4%) or a child walker (6.9%). Such specificity helps regulators identify areas where action can be taken to prevent falls and reduce the number of injuries.

Indirect Causes

Others conclude that attention needs to be paid to indirect causes, either in combination with direct causes or as a primary focus. Often, supervision is the indirect cause.

Supervision

The American Academy of Pediatrics (AAP) (2003a & 2003b) has recommendations for the prevention of drowning that encompass both environmental strategies (fences – a direct injury cause) and behavior (supervision – an indirect cause). The National SafeKids Campaign (2004) notes that "water and children can be a deadly mix when an unsafe environment, inadequate supervision or improperly used safety gear is also present." Listman (2004) points to the need for both eye protection and supervision to reduce injuries from paint balls. Landen et al. (2003) examined 10 safety standards and concluded that supervision was the most commonly violated standard. Wrigley (2004) notes that "children in family day care who die from suffocation, strangulation, or drowning are most often unattended at the time of death."

Training and Education

Other researchers found risk in a lack of training and education. Currie and Hotz (2001/2004) found that requiring caregivers to have training beyond high school has a "large and significantly negative effect" on accident rates (p. 24). In fact they conclude, categorically, that "higher education requirements appear to be good public policy. They reduce both fatal and non-fatal accidents without reducing children's access to regulated care" (p. 31).

With respect to gun safety, Connor and Wesolowski (2003) found that parents have "unrealistic expectations" related to children's development and self-control while Himle et al. (2004) and Gatheridge et al. (2004) assessed the effectiveness of training programs for young children.

A number of researchers are concerned about the safety of children in vehicles and call for more better access to knowledge about car seats and restraints, including Vaca et al. (2002), Wegner and Girasek (2003), Ebel et al. (2003), Egerton et al. (2004) and Winston et al. (2004).

In a study of particular relevance for regulators, Titus et al. (2003) explored differences between burns to the feet and lower extremities from accidental causes and from abuse. They found that while the locations were the same, the patterns of the burns were different. An understanding such distinctions could be an important investigative tool for licensors and other regulators. Their findings also support regulatory safeguards when they suggest that caregiver education on the importance of lowering water heater temperatures and discouraging play in household sinks to prevent additional tap water scald injuries.

Nakamura et al. (2003) also recommend education as a preventive strategy to raise awareness of the risk to children between four and 36 months when hollow objects such as shallow containers form a vacuum that causes upper airway obstruction and suffocation.

Education is also a pervasive strategy in the fight against sudden infant death syndrome (SIDS). Rasinski et al. (2003) investigated the importance of education to attempts to reduce the incidence of SIDSs among African American children. Moon et al. (2003) carried out a study to find out if night time child care centers follow Back to Sleep recommendations and found that the presence of written policies is not a guarantee they will be implemented and that increased educational efforts are required. In another study, Moon and Oden (2004) concluded that a 60-minute educational in-service for child care providers, led by a health educator, was effective in changing caregiver behavior and promoting the development of written sleep position policies. To address the higher incidence of SIDS in the black population, Moon et al. (2004) designed a 15-minute educational intervention to determine whether it would change sleep position practice among black parents in D.C. They found that a 15-minute educational session was effective and that the effects were sustained through six months. Scheers et al. (2004) called for public education when they investigated where children should sleep and concluded that "the most conservative estimate showed that the risk of suffocation increased 20-fold when infants were placed to sleep in adult beds rather than in cribs."

Regulatory Issues

A number of researchers have explored the role of rules and regulations in the reduction of harm to children. For example, MacPherson et al. (2002) carried out a country-wide Canadian study comparing rates of head injury in regions with and without mandatory

bicycle helmet legislation. They found "a 45% reduction in the rate of bicycle-related head injuries to children 5-19 years of age in provinces where legislation had been adopted" and concluded that legislation was "an effective tool in the prevention of childhood bicycle-related head injuries."

Keenan and Bratton (2004) investigated patterns of injury, place of injury, helmet use and death for children under 16 years of age involved in ATV crashes. They found that living in Pennsylvania where regulations are in place was associated with decreased risk factors compared with living in North Carolina where ATV use is unregulated. In spite of regulations, however, children were still at risk and they recommend prohibiting children under 16 from riding or driving ATVs.

For some time Rachael Moon and colleagues have explored the role of child care regulations in reducing the incidence of SIDS (Gershon and Moon (1997), Moon and Biliter (2000), Moon et al. (2001)). More recently, in the study noted above related to night time care, Moon et al. (2003) discovered that the presence of written policies was not a guarantee that they would be implemented, suggesting that follow-up is needed to ensure that compliance with requirements also means understanding and implementation.

In fact, several researchers have, indirectly or directly, addressed enforcement processes in their quest to prevent or reduce risksto children. Emphases on definitions and coding, usually arising from other concerns such as accurate data collection, also highlight the need for careful investigative techniques. In the study of tap water scalds noted above, Titus et al. (2003) show how close examination of an injury can reveal differences that, for regulators, would lead to very different types of investigation and enforcement action. On the one hand, an injury from flowing water is likely to be accidental. On the other, a scald or burn created from forced immersion could lead to allegations of serious abuse.

Research shows that in order to obtain accurate information and be able to take appropriate preventive measures, care must be taken when identifying and documenting the causes of injury. Schaechter et al. (2003) questioned whether "accidental" gun deaths were as rare as they seemed. After examining a manner of death coding system along with an intent-based classification system, they concluded that when the term "accident" is used, the incidence of unintentional pediatric firearm deaths is significantly underreported.

Recent changes in the classification of SIDS deaths are of special concern to child care regulators seeking to prevent deaths in child care settings. Krous et al. (2004) track the origin and evolution of the SIDS definition while Malloy and MacDorman (2005) explore changes in the classification of sudden unexpected infant deaths in the US between 1992 and 2001. They found that both all-cause neonatal mortality and SIDS rates declined between 1992 and 2001, but that for the period from 1999 to 2001, while the SIDS rate declined, the overall postneonatal rate did not change significantly. As a result, they question whether the falling SIDS rate is the result of a reduction in SIDS or the product of more accurate coding as a result of more through investigations.

Of specific relevance to child care licensors, is research that directly examines the role in risk reduction of one or more aspects of the licensing process. In addition to considering the effects of caregiver education and training, Currie and Hotz (2001/2004) investigated the impact of annual inspections and found that having more than one annual inspection by the licensing agency is associated with lower rates of injury needing medical attention. In another context, but illustrating the same principle, King et al. explored the long term effects of home safety visits to prevent injury. Sample children were identified through emergency department logs at selected Canadian hospitals. Home visits and telephone follow-up were carried out by research assistants. Results suggest that a home visit was associated with "a sustained, but modest, reduction in injury rates."

Witte and Queralt (2004) found that placing child care provider inspection and complaint reports on the Internet changed the behavior of child care inspectors and improved the quality of care received by the children. Details about state enforcement practices, including the organization of inspection staff and use of technology, are available in the report from the GAO (2004), "State efforts to enforce safety and health requirements."

The National SafeKids Campaign (2003) collected and analyzed state child care regulations as they relate to the transport of children and made recommendations in its final report, including that licensing agencies "should revisit their regulations and ensure that all children are properly restrained." Kotch et al. (2003) studied the effects of rule-revision on playground safety in North Carolina and found a reduction in medically-attended injury. In fact, they claim that to their knowledge their study marks "the first time such a decline in state-wide injury rates has been associated with improved regulation of playground safety in regular, out-of-home child care in the US"(p. 224).

With respect to regulatory administration in other fields, Kagan (1994) has written extensively about enforcement issues, especially in relation to regulatory styles. He cites research arising from studies of occupational safety that link regulatory activity and injury rates. One study confirmed that "selective enforcement" (a blend of legalist and flexible styles as warranted by circumstances) was "significantly correlated with lower statewide injury rates, even after one controlled for frequency of inspection, economic conditions, state political climate and other potential causal variables." Another, that used "declines in worker mortality and injury rates as a measure of effectiveness" found that "flexible enforcement, backed by realistic threat of legal sanctions, was more effective than either toothless or legalistic, sanction-oriented methods" (p. 390).

Exploring regulatory activity in a similar workplace environment, Scholz described an evaluation that found "evidence that very short and very long inspections were less productive per hours than intermediate-length inspections." Inspections that "only looked at a plant's injury records had no impact on injury rates." Furthermore, longer inspections associated with penalties greater than $500 were found to have no greater impact on injury rates than the shorter inspections associated with penalties less than $500. As a result, the researchers concluded that "spending a moderate amount of time per inspection seems to be most productive" (p. 438).

The Appendix

These and other studies are included in Appendix A, a list of resources resulting from a literature search targeted toward research, largely since 2000, on the risks of harm to children from unintended injuries, especially to children in early childhood.

PART 3: EXEMPLARY SYSTEMS

Project Overview

Injury data and findings from the literature search were substantiated in the survey of exemplary licensing systems carried out for this project. As agreed at the outset, five states were selected as focus states: Indiana, Michigan, Oklahoma, Tennessee and Utah. Selection was made following a search of licensing web sites for all 50 states, plus the District of Columbia, as well as available literature. Since the project period was short, ease of access to information was of key importance, as was the need to ensure that the scope of the project did not exceed the time and resources available for data analysis.

Once the states were selected, a questionnaire was developed to solicit information about their licensing systems (Appendix B). This questionnaire was sent by e-mail to key informants in all five states in April 2005. Follow-up interviews were carried out with selected individuals, including both recipients of the questionnaire and others whose names were suggested in the course of data collection.

Complete responses were received from licensing agencies in three of the five states: Indiana, Oklahoma and Tennessee. Information was obtained about current and former licensing practices in a fourth state, Michigan, from a former licensor and from others in non-profit organizations with ongoing links to licensing and particular interests in rule formulation and investigation. No response was received from the fifth state, Utah, which had initially agreed to participate. Ultimately, the reason given for the lack of response from Utah was that the licensing agency was currently without a director. All contacts in all states, including Utah, were cordial and those who participated did so with interest and enthusiasm.

Of the three states that provided complete responses, two, Oklahoma and Tennessee, appear to have comprehensive licensing systems that have an established history of functioning effectively, with almost all system elements in place. The third, Indiana, has some exemplary elements, but others are either too new to assess or have not yet reached their potential. As a result of political and administrative changes in the fourth state, Michigan, key informants are no longer directly involved in licensing but their views have been included since they were able to describe system characteristics and practices that in the past have been proven to reduce risks to children and still seem viable today. Information of relevance from the web about practice in the fifth state, Utah, has been included at appropriate points.

The paragraphs below include summaries of responses from key informants, organized according to state. Appendix C provides comparisons in chart form of edited responses to the Questionnaire from Indiana, Oklahoma and Tennessee, as well as relevant information from Michigan and Utah. Appendix D contains information about key informants. To avoid confusion, the term “licensing agency” has been used throughout to refer to all state licensing units.

State Summaries

INDIANA

Information sources for this summary include: Anita Smith, Indiana Division of Family and Children, who responded in writing to the Questionnaire; a personal telephone interview with Patricia Cole, Research Associate, Indiana Institute on Disability and Community at Indiana University-Bloomingdale; and previously published resources noted in the resource list that follows the summary.

Standards and Rating

With respect to strategies to prevent harm to children through regulation, the most distinctive initiative undertaken in Indiana may be the comparison of its child care licensing and registration requirements to the National Health and Safety Performance Standards (National Standards), carried out in 2000 by Patricia Cole. Cole's review was based on Standards as they appeared in the first edition of *Stepping Stones* and has since been updated to reflect changes in the second edition. Results were reported in the media to help build support for child care licensing. They also provided background for rule revisions carried out following release of Cole's report. A revised center rule was promulgated in Indiana in 2004, while a new home child care rule is being developed.

When interviewed, Cole spoke of the importance of a research-based rule revision process. Cole was not the first to compare licensing rules to the National Standards. She said that center rules have been compared in both Connecticut and Nevada and possibly elsewhere. She believes, however, she was the first to compare rules in all types of settings (not just center rules) and the only one to have evaluated rules on a sliding scale indicating the degree of agreement between the rules and the National Standards. As she describes in her report (2000), she used a "degree of agreement scale" that had already been developed for a study of the intent of child care regulation in five other states. Scoring on the scale is as follows:

1- No mention or some mention of National Standard with no elaboration
2- Includes intent of National Standard, plus mention of some criteria
3- Includes intent of National Standard, plus elaboration of criteria
4- Includes all criteria of the National Standard.

Use of this scale permitted assignment of a numerical value to the degree of agreement. Results were analyzed based on agreement with both the five major areas of the National Standards (e.g. Building and Premises: Equipment, Safety and Practice) and topic area (e.g. Staffing). In each case, the percentage of Standards scoring 3 or above was calculated. Detailed results are presented in the report which is readily available on the web. It may be of interest to note here that more Standards were addressed at the 3 or higher level in the rules for centers than in the rules for family child care homes (62% v 32%) and that following the recent revision, Indiana's rules for centers meet 90% of the

National Standards included in the new edition of *Stepping Stones* (Cole, personal communication; Smith (2004)).

Other conclusions relevant to this study include Cole's concern that her review did not take into consideration other factors, including the scope of child care licensure and registration (Indiana has four types of regulated care and 14 types of exempt care – personal communication), the language of the rules, and enforcement. She also called for the development of guidelines to provide clarification on the rules, as well as licensor training on the application of those guidelines and training on the National Standards for a broader population, including policy makers, licensors, providers and parents. She points to the need for further research into the consequences of her findings and for increased funding so support all aspects of the licensing function – "adequate funding to increase the number of skilled licensing personnel is critical to providing monitoring that ensures minimum compliance."

Since Cole's report appeared, changes have occurred. Indiana's child care center rule has been revised and the licensing agency now has a new emergency closure process authorized by statute (Smith, 2004 and questionnaire). In addition, since 2004 Indiana has had a tiered reimbursement system, funded solely with federal funds. The system is very new and, at this point, offers providers relatively modest increments. Local rating systems and other incentives have been in place in various areas of the state for five years. Bases for these programs include both national accreditation systems and rating systems based on ECERS and related scales.

Technology

Of the three states returning questionnaires, Indiana appears to be the most advanced in relation to its use of technology in the licensing process as well as data collection and tracking. Since 2004, information about licensing, including specific facilities, has been available on the web at www.ChildCareFinder.IN.gov While research for this report was being carried out, licensors were piloting use of their own PC tablets in the field. Indiana already has a centralized data collection system and has been tracking data for about two and a half years. According to questionnaire results, data tracking child fatalities was "instrumental" in the revision of the child care home licensing rules, now in progress. In the spring of 2005, the State was just starting a relationship with the Child Death Review Board (Smith, Questionnaire).

Collaboration

Indiana's licensing agency collaborates with a wide variety of other agencies and organizations, in part because of shared regulatory responsibilities and in part to carry out the aims of the agency. For example, Cole (2001) has written of the role of health consultants in increasing the levels of health and safety in regulated child care settings in the state. Her research and reports, and the development of a state plan for a child health consultant program, illustrate the benefits of the agency's various links with both Healthy Child Care Indiana and the Indiana Institute on Disability and Community at Indiana

University-Bloomington. In addition, the State contracts with the Indiana Association for Child Care Resource and Referral for the administration and monitoring of its incentive program.

Resources

Cole, P. 2000. *Comparison of Indiana's child care licensing and registration requirements to the National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs.* A report completed with federal funding from Healthy Child Care Indiana and support from Indiana University Institute on Disability and Community. Available on the World Wide Web at http://www.iidc.indiana.edu/ecc/products_research.htm

Cole, P. 2001, August. *Healthy Child Care Indiana Child Care Health Consultant Project Child Care Provider Survey.* A report completed with federal funding from Healthy Child Care Indiana and support from Indiana University Institute on Disability and Community. Available on the World Wide Web at http://www.iidc.indiana.edu/ecc/products_research.htm

Cole, P. & Smith, A. 2004, September. *Healthy Child Care Indiana & Child Care Licensing: A model for success.* Presentation Summary. NARA Annual Licensing Seminar. Nashville, TN. Conyers, GA: National Association for Regulatory Administration (NARA).

Smith, A. R. 2004, Summer. "Great things are happening in the Hoosier State." In *NARA Licensing Newsletter*, p. 21.

State's child care regulations fall short of National Standards. October 29, 2001. Media release. Available on the World Wide Web at http://www.iyi.org/beall_ball_library/alerts.html

MICHIGAN

Information sources for this summary include personal telephone interviews with Jacqueline Wood, former licensor for the State of Michigan and currently a consultant with Michigan's Department of Education; Sarah Rich of the Maternal and Child Health Bureau in Washington, D.C., speaking on behalf of the National Child Death Review Board; and Sandra Frank and Mary Adkins of Tomorrow's Child: Michigan Sudden Infant Death Syndrome (SIDS); and resources identified in the resource list that follows the summary.

Information for this summary was primarily collected in a personal telephone interview and through a written presentation summary by Jacqueline Wood, a former Michigan licensor. Subsequent telephone interviews were conducted with key informants suggested by Wood.

Although the system Wood describes is no longer in place in Michigan, it has influenced other organizations that continue to support and exemplify its basic principals. Fundamentally, the system involves the rigorous investigation and tracking of all incidents that might threaten the health and safety of children, including both violations and complaints. These steps were followed by data evaluation, pattern identification, targeted provider education, rule revision, and evidence-based enforcement action. The system focused on investigation and interviewing skills, and relationship building.

Education was an important element in Michigan's system and providers participated both at the request of the agency and voluntarily. Education included orientation for home providers. The agency developed training materials, such as videos, and licensors were trained to be effective trainers with positive results. Licensors looked for violations to find out where they should enhance their training. Wood reports that when providers were educated in this way, "violations dropped 70%."

Over the years, Wood reports, the agency carried out in-house mini-studies. One was based on a three-year demonstration project carried out when the State switched from licensing to the registration of homes. The agency divided the homes into three groups: homes in the first were licensed as usual, homes in the second were registered, and homes in the third received "enriched registration" (i.e. registration plus training). In the end, they found that the homes that underwent routine registration had an 80% violation rate while the percentage of violations in homes that received enriched registration dropped substantially and was the same as in licensed homes.

Michigan tracked its deaths and serious injuries from the early 1970s to the late 1990s (Wood, 2003). In that period, the agency realized that it was important to track data and look for patterns over several years, not just months. The agency also recognized the need for detailed investigations and developed a detailed investigative checklist for staff to use. In addition, cross-agency collaboration expanded in the quest to prevent deaths, injuries and illnesses.

In keeping with its long history of data collection and tracking, Michigan sponsors the National Center for Child Death Reviews. To date, Wood reports that the Center has made recommendations for rules related to back to sleep, weapon's storage, water hazards, and car restraints. Although no longer a licensor, Wood continues to be a member of Michigan's Child Death Advisory Team as well as a number of other collaborative bodies.

In at least two respects, the National Child Death Review Team continues the work begun by Wood and colleagues in Michigan's licensing agency (Sarah Rich – personal communication). With input from licensors, it is developing a data tool collection system. It is also collecting data from across the US and is hoping to use it in future to establish national trends.

Further, Michigan's Advisory Team continues to work with the licensing agency and others to reduce risks to children. Another member of Michigan's team, Sandra Frank, is executive director of Tomorrow's Child (TC), a Michigan organization concerned with infant deaths. In a telephone interview with Frank, an attorney, and her colleague at TC, public health nurse Mary Atkins, it became apparent that the investigative techniques described by Wood lie at the heart of many TC activities.

As an attorney, Frank sits on a multi-disciplinary task force and is currently using her legal expertise to research legislative history and rules developed in other states to provide advice to the licensing agency as it drafts new licensing rules. Both Frank and Atkins are committed to risk reduction through "safe sleep" practices and to the importance of thorough investigations. They emphasize that the appropriate term is "safe sleep" not "SIDS" and are convinced that SIDS diagnoses have not been used appropriately in the past.

Adkins noted that to satisfy the definition of SIDS there must be a negative death scene, a negative autopsy, and a negative medical history. That is, the child must have been positioned for sleep safely, and must not have had a medical condition that has been diagnosed in the past or identified during an autopsy. "SIDS," she said, has been used as a "catch all" even when no autopsy has taken place. It has always been a mystery but it is important to remove as much of the mystery as possible." Taking steps to remove that mystery may be difficult for the community since "people would rather have SIDS than suffocation as the cause of death" (personal communication). She noted that in Detroit, where investigative techniques are excellent, latest data show only one true SIDS death.

To assist others in carrying out through investigations TC has developed an investigation form, available on its website, http://www.tomorrowschildmi.org/ This form may be useful to licensors both for investigation of potential SIDS cases and as a model for looking into other incidents. Similarly, the SIDS example serves to illustrate the benefits of careful investigation and the danger of reaching conclusions based on too little evidence. In these ways, practices developed in Michigan's licensing agency through the 1990s are continuing to be used and refined elsewhere, reducing risks to children within Michigan and beyond.

Resources

Wood, J. (2003) *Child deaths and injuries in regulated care: What we can learn and put into action.* Presentation Summary. NARA Annual Licensing Seminar, Portland, ME. Conyers, GA: National Association for Regulatory Administration (NARA).

National Maternal and Child Health Center for Child Death Review. See http://www.childdeathreview.org/home.htm

Tomorrow's Child: Michigan Sudden Infant Death Syndrome (SIDS). See http://www.tomorrowschildmi.org/

OKLAHOMA

Information sources for this summary include a personal telephone interview, based on the Questionnaire, with Gala Garrett, Stars Program Manager; Kristi Simpson, Assistant Licensing Coordinator; and Susan Case, Policy, Research and Staff Development Specialist; and resources identified in the resource list that follows the summary.

Oklahoma appears to have an exemplary licensing system with strengths in almost all areas, although it appears to have room to grow in areas related to the use of technology and data tracking. System elements seem balanced, complementary and interconnected, and responsive to current needs. Education is a major focus for both providers and licensors. Licensing functions co-exist with activities related to what may be termed the "center-piece" of its system, the pioneering Reaching for the Stars program that introduced the concept of tiered reimbursement in 1998.

The Stars Program

Although technically a "quality strategy," the Stars program has added complexity and urgency to licensing in the state. For example, although participants in the Stars program may shift their attention from licensing issues to Stars, the Stars program provides them with an additional incentive to comply. Participants take compliance seriously, for its own sake, but especially because they worry about losing their Star status and the financial benefits that come with it. At the same time, the Stars program puts additional stress on licensors since, in addition to decisions affecting licensing status, they are also making decisions that may determine the financial viability of homes and centers.

The two systems are highly interconnected. For example, when a licensor discovers non-compliance that may reduce a provider's Star status, the licensor considers the risk to the children and the response of the provider. In most cases, the licensor refers the case to a Stars Outreach Specialist who assists the provider and provides technical assistance as necessary. Providers whose Star status is being changed have access to an administrative review process developed for the Stars program, although Garrett and colleagues noted that while there have been approximately two administrative hearings a month, there have only been three hearings in the past four years where the agency's decision has been overturned.

Oklahoma's licensing agency offers provider training on a number of topics, including self-assessment and program evaluation. This course, which is designed to inform the provider and take away anxiety related to experiencing a licensing visit, helps providers understand what they must do to comply. It is mandatory that all home providers and one staff member from each center take this training as part the Stars program. This training is free and is open to all providers, whether or not they are participating in Stars, serving as a further example of connections between the two systems.

Training and Education

Training and education is a major focus of Oklahoma's system. Ongoing provider training is required and the State regularly provides training opportunities. Specific topics depend on reports from licensing staff of current needs which may differ in different geographic areas. Such training is offered in vocational schools and junior colleges throughout the state.

The State also has comprehensive training requirements for licensors. Candidates must have a bachelor's degree in any subject area. Once hired, licensors must have 40 hours of continuing education a year. New licensors must complete a series of workshops especially for licensors that currently provide 43 hours of training. The agency hopes to expand this requirement to include working in a child care program.

Among the opportunities provided to licensors are on-going two-day state-wide training sessions as well as occasional speakers and workshops. In addition, the State pays for tuition and books for any staff member who wishes to pursue a master's degree in early childhood. Staff can also get educational leave to go to class during working hours. To date, 10 or 11 staff have earned advanced degrees through this program. Garrett and colleagues noted that the training opportunities offered to staff may be one of the reasons licensing has the lowest staff turnover of any division in the Department.

Licensing Process and Enforcement

Licensors visit full-year programs a minimum of three times a year. Visits are unannounced, except for new facilities, and if there is a formal inspection, the full checklist is used. Licensors also complete a checklist based on Stars criteria. Based on legal advice that if something is important it should be included in the rule, the agency does not have an "intent and indicators" document but does send clarification e-mails to staff from time to time. As a result, Oklahoma's rules are detailed.

With respect to enforcement, Garrett and colleagues report that Oklahoma imposes more negative sanctions than any other state. The State has an attorney who works with the department and trains staff in investigative techniques and reviews processes with licensing staff. Stars reduction also acts as an intermediate form of sanction.

Within the last few years, the State has created "alternative compliance" (c.f. waivers). Alternative compliance cannot be requested in specific health and safety areas, such as staffing, capacity and fire prevention.

As part of its relationship with the state child care association, the agency has worked out a policy for the self-reporting of incidents and non-compliance for members of the association. At first, providers thought they could avoid sanctions if they self-reported. Now, self-reporting triggers a visit from a licensor and they are given a plan to correct the non-compliance and the agency may take negative action, if necessary.

Partnerships

In addition to working closely with the state child care association, the agency has links with SafeKids (advice on rule changes, training), the poison control center (advice, training), local resource and referral agencies funded by the State (rule revision and, especially, the Stars program for which they provide technical assistance), and the universities.

In keeping with its focus on education, the agency has many links with the universities, including contracts with the Center for Early Childhood Professional Development at the University of Oklahoma to evaluate programs using rating scales and to administer its director's credential and professional development ladder for all child care staff, and to provide staff training. The agency also works with Oklahoma State University with respect to its Stars program.

In addition, researchers at the Early Childhood Collaborative of Oklahoma have evaluated the Stars program, producing reports noted in the resource list below. The Collaborative is a University of Oklahoma/Oklahoma State University Partnership.

Resources

Note: for information about the following reports or the reports themselves follow the links at http://okdhs.org/childcare or http://www.ouedu/ecco or http://www.nccic.org

Norris, D. & Dunn, L. (2004, August) *"Reaching for the Stars" Family Child Care Home Validation Study final report.* Early Childhood Collaborative of Oklahoma (ECCO).

Norris, D., Dunn, L. & Eckert, L. (2003, November) *"Reaching for the Stars" Center Validation Study final report.* Early Childhood Collaborative of Oklahoma (ECCO). Prepared for the Oklahoma Department of Human Services (DHS), Division of Child Care.

"Reaching for the Stars" and child care quality: Brief report of findings from a statewide study of child care centers. (2003, Fall). ECCO Brief Report #1 based on findings from *Technical report: "Reaching for the Stars" Center Validation Study final report.* Early Childhood Collaborative of Oklahoma (ECCO). Prepared for the Oklahoma Department of Human Services (DHS), Division of Child Care.

Norris, D. & Dunn, L. (2000, October) *Taking a closer look: Tiered licensing and differential quality.*

TENNESSEE

Information sources for this summary include a personal telephone interview with Anne Turner, director of licensing, as well as a Questionnaire completed by Anne Turner in consultation with her staff; and resources identified in the resource list that follows the summary.

Tennessee appears to have an exemplary licensing system with strengths in almost all areas, although it appears to have room to grow in areas related to the use of technology, data tracking and licensor training. System elements seem balanced, complementary and interconnected, and responsive to current needs.

Anne Turner reports that Tennessee's licensing system was completely overhauled following two tragedies in 1999. As a result, all elements were revised at the same time so that changes in one area were complemented by changes in others. In addition, licensing staff was quadrupled. There was broad public support for these changes at that time and the system continues to be well-resourced and supported by legislators, providers and the public.

Turner, Tennessee's current director, helped plan the system and was then asked to serve as its director. As an attorney with a degree in early childhood, she sees her role from a dual perspective.

Rules

As in many other states, the initial impetus for rule revision was tragedy. The rules themselves evolved after consultation with many sources and comparisons with the National Standards, accreditation standards and other benchmarks, including careful comparisons with the ECERS series.

In tandem with its licensing process, Tennessee implemented its Child Care Evaluation and Report Card Program as well as its Star-Quality Child Care Program. The Evaluation and Report Card Program is mandatory for all licensees, while participation in the Star-Quality initiative is voluntary. As a result, all licensees in Tennessee are evaluated using one of the environment rating scales. The agency compares its licensing rules with the scales to prevent conflicts and ensure consistency, and also routinely checks with the authors of the scales, Harms and Cryer, to ensure that Tennessee's application of the scales remains consistent and reliable.

Tennessee has comprehensive licensing rules. When formulating or revising those rules, the agency makes conscious decisions as to whether they will be more or less stringent than the National Standards as they appear in the latest edition of *Stepping Stones.* In some cases, they report choosing to keep the rules more basic, allowing the assessments using the rating scales to impose a higher level of quality. In a recent revision, yet to be promulgated, they report deleting rules in "less critical 'safety' areas" so that the

licensing rules can "concentrate on fundamental health and safety, while the assessments concentrate on higher level quality issues"(Questionnaire).

[An example with respect to snacks in child care centers illustrates this point. A comparison of Tennessee's current child care centers rule with an unpublished draft provided as background to this report shows that while the current rule identifies specific snack foods that are "highly inappropriate" and "shall not be served" and includes a reference to Appendix G which includes a list of suggested snack meals (1240-4-3.12 (1)(i)), the proposed version is much more general: Snacks are to be of "sufficient portions and nutritional value to meet each child's health needs as defined by current USDA guidelines" (1240-4-3-.11(1)(a)). Notes to the draft indicate that the list of allowable snack be modified to give providers flexibility and because "requiring specific foods is not a core health and safety issue appropriate for licensing regulations."]

Incentives and Licensing

Although Tennessee has had a fully operating incentive system in relation to both licensed homes and centers since October 2000, it does not influence the legal status of the license. Because the evaluation system is mandatory, all providers get a written report card in conjunction with their annual licensing inspection. Providers who participate in the Star-Quality Program can earn from 0 to three stars. Each license has a sticker indicating the number of stars the provider has earned but the legal status of the license is remains the same.

Evaluation is now done by the licensing agency in-house, although it used to be contracted out. It was moved in-house and made part of regulation so that it would be more difficult to eliminate. When problems are discovered during evaluations, they are treated as complaints and reported to licensors who investigate as they would any other complaint.

Providers who accept certificate (State subsidized) children receive a bonus above their normal reimbursement rate, based upon their star level. For example, a three-star provider can earn a 20% bonus above the regular rate. This program is, therefore, expensive but considered "a huge success in providing an incentive for providers to strive for higher quality" (Questionnaire).

In addition to serving as an incentive to quality, it has also been an incentive for licensing. Providers are barred from the Star program if they have a legal action. The program, thus, adds an additional level to the sanctions already in place for non-compliance with licensing requirements.

Technical Assistance and Training

Tennessee's Child Care Resource and Referral system provides informal technical assistance based on provider's request's and licensor's requests. The State also has a formal training system within which workshops are delivered on specific topics. Topics

are regularly evaluated to ensure that they meet needs. In addition, the agency also has a formal system of training specifically related to the rating scales used in its evaluation program. Licensors are expected to provide technical assistance in relation to understanding and complying with the rules but consultation above that level is referred to the Child Care Resource and Referral system.

Partnerships

In addition to working with the Child Care Resource and Referral system, the licensing agency also has a formal partnership with the University of Tennessee Social Welfare Office of Research and Policy (UT-SWORPS). UT-SWORPS manages the child care assessment program and maintains data on it which is used to improve the system in general and target training and technical assistance. The agency does not have a contract for data analysis.

Licensing and Enforcement

Tennessee's licensors make several licensing visits each licensing year. Further evidence of the integration of Tennessee's licensing and incentive systems is the fact that the number of licensing visits received by a provider depends on the provider's star-level. Provider's who have earned three stars receive a minimum of four unannounced visits and one announced visit per licensing year. Providers with no stars and new providers receive a minimum of six unannounced visits and one announced visit. Regardless of status, all must receive a minimum of one unannounced visit per quarter and agencies that transport must receive at least one "extra" unannounced visit specifically to check transportation during the summer.

Licensors in Tennessee use a long "annual evaluation" checklist as well as a shorter "monitoring" checklist. The shorter checklist has a "running log" to ensure that all areas are covered and that high risk areas are checked every time. High risk areas include supervision, criminal background checks and transportation.

With respect to enforcement tools, Tennessee has civil penalties, voluntary suspension and loss of star status. Turner reports that voluntary suspension has been particularly successful. As a result of this initiative, providers can voluntarily suspend part, or all, of their license at their own request. This initiative apparently does not affect re-licensing since the agency has grounds for screening out unscrupulous providers. In the eyes of the agency, voluntary suspension has been successful because it allows it to "freeze" the action until corrective measures can be taken. It keeps the children safe, prevents public embarrassment for the provider and saves the agency from using resources on formal enforcement.

Licensor Support and Training

The State provides licensors with written policies and procedures but, by policy, does not have an intent and indicators document. All information is included in the rules which

include “compliance statements” that provide explanations of what providers must do to achieve compliance and understand the point of the rule. In Turner’s eyes, it is extremely important to maintain provider “buy-in” to the rules. A second document that seems to propose another set of standards would cause resentment and confusion and imply that the agency was imposing yet another set of standards. In key sections, like supervision, the agency has put rule interpretation into policy. Since it takes time for policy to evolve, it is sometimes necessary to provide the licensors with guidance on specific rules.

Tennessee licensors must have a four-year college degree with human services experience. The agency does not have a formal CEU system, but does have mandatory training throughout the year.

Resources

Neill, D. & Turner, A. (2004) *Targeted technical assistance: Enhancing quality initiatives by directing technical assistance to individual evaluation results.* Presentation Summary. NARA Annual Licensing Seminar, Nashville, TN. Conyers, GA: National Association for Regulatory Administration (NARA).

Neill, D. & Turner, A. (2004) *The regulatory partner in rated license quality initiatives: Enhancing outcomes through the incorporation of mandatory regulations.* Presentation Summary. NARA Annual Licensing Seminar, Nashville, TN. Conyers, GA: National Association for Regulatory Administration (NARA).

Turner, A. (2004) *The world between warning letters and revocations: Enhancing both compliance and quality through the use of progressive discipline.* Presentation Summary. NARA Annual Licensing Seminar, Nashville, TN. Conyers, GA: National Association for Regulatory Administration (NARA).

Rules Cited

Tennessee. Chapter 1240-4-3 *Licensure Rules for Child Care Centers Serving Pre-School Children* (1/2005)

Tennessee. (2004). “Child Care Centers Ending Draft,” Chapter 1240-4-3 *Licensure Rules for Child Care Centers Serving Pre-School Children.* Unpublished manuscript – personal communication.

UTAH

Information for this summary is available on the website of the Utah Department of Health at http://health.utah.gov/licensing

According to information on the agency's website, Utah's child care licensing system appears to have characteristics that are of specific relevance to this study on reducing risks to children, including

- The use of multiple checklists, including regular licensing checklists for specific types of care as well as checklists covering "High Harm Areas" and checklists of "Potential Questions."

- Evidence of a revised inspection process involving a initial announced visit when the full checklist is systematically reviewed, followed by an unannounced visit when the facility is inspected for High Risk Harm (HRH) areas. These areas include, but are not limited to child to adult ratios, group sizes, accessible chemicals, and child supervision practices.

- A revised complaint process that changes the agency's response to anonymous complaints. In future, anonymous complaints will not be investigated. They will be noted in the file for reference at the next regular inspection of the facility and, where indicated, referred to the appropriate law enforcement or child protection agency. The licensing agency will encourage complainants to be either confidential or known.

Information about the context in which these changes were implemented, the success of their implementation and other details is not available.

Resources

Note: All resources are available by following links at http://health.utah.gov/licensing

Child Care Center Checklist – High Harm Areas

Family and Family Group Checklist – High Harm Areas

Letter to the providers/CC Advisory Committee members. 2004, December 21. Iona M. Thraen, HSI Division Director.

UDOH Child Care Licensing to implement new inspection process: New process helps child care providers improve care. 2004, December 20. Media release. Utah Department of Health.

PART 4: RESPONSE TO THE QUESTIONS

Is there a relationship between licensing systems and rules being enforced?

Yes, there is a clear relationship between licensing systems and rules being enforced. Rules – an element of "regulatory legal design" – are among the four explanatory factors that Kagan (1994) sees as simultaneous influences on agency action. The other factors are the agency's task environment, political environment and internal leadership.

The centrality of rules within licensing systems is evident in the comments of key informants for this study. Patricia Cole of Indiana called for "a good set of rules made viable by well-trained, competent regulatory staff, with consistent enforcement, [… according to] licensing policies and procedures" (personal communication).

Similarly, in the eyes of Anne Turner, director of licensing for Tennessee, an effective enforcement system must have three characteristics and "all three must be present:"

- Effective rules,
- Frequency of monitoring measured in the number of visits, and
- Enforcement with consequences behind rules.

Next in importance, are

- Licensor training to ensure the quality of the enforcement process, and
- Buy-in to rules on the part of parents and the public.

With respect to "buy-in," Turner reported that Tennessee has seen "a shift in attitudes" as "more people think that the child care industry should be heavily regulated." In her view:

Buy-in is a big risk reduction factor. Paramount to ensuring buy-in is having rules that allow people to articulate "the point of the rules" so that when the State takes legal enforcement action (as it does) there is good back-up for that action. Licensors need back-up from their agency "not endless bureaucracy."

(personal communication)

In her comments on "buy-in" Turner extends the link between rules and the licensing system, to establish a connection between rules, the system and the public that can lead to "back-up" for legal enforcement action.

In their response to the Questionnaire, licensors from both Tennessee and Oklahoma indicate that they take into consideration other elements of their licensing system. Tennessee reported, for example, that when formulating rules, they consider the requirements of their Star-Quality incentive system and try to find a balance: "In [… some] areas we choose to keep the rules more basic and allow our assessments (using the rating scales) to impose standards for a higher level of quality" (Questionnaire).

Oklahoma reported that they consider their incentive system when they find non-compliance with licensing rules:

When licensors discover non-compliance they look at the risk to children and the response of the provider. If a licensor discovers non-compliance that may reduce a provider's Star status, the licensor will refer the case to a Stars Outreach Specialist.
(personal communication in response to Questionnaire)

In these examples, rule formulation and enforcement occur within a system that includes an incentive program that is closely linked to – almost intertwined with – licensing functions. Discovery of non-compliance with licensing requirements, a negative enforcement action or a change in licensing status can mean that a provider is no longer eligible for what may be substantial financial incentives. Similarly, in Tennessee, a failure to meet standards in its incentive program is treated like a complaint and is reported to the licensing agency for investigation.

As it happens, the three examples cited in this report all have incentive programs. Key benefits of incentive programs for the licensing function derive from the additional technical assistance and training that are available to providers through incentive programs. With or without an incentive program, licensing agencies offer providers technical assistance and training, as well as educational materials. These activities are directly related to rules and rule-violations. Since these activities require major expenditures and often involve collaboration with other organizations, such as resource and referral agencies and universities, licensing rules have an impact on the number and functions of other elements in the system.

Finally, the nature of licensing rules can influence enforcement styles: detailed legalistic rules may be accompanied by strict enforcement practices, while more general rules may encourage more flexible practices (Kagan, 1994).

Which states have rules that seem more likely to minimize risk to children?

States with rules that seem more likely to minimize risksto children are states that have effective rule-formulation processes. They consult with individuals with expertise in specific areas, as well as stakeholders, and, as far as possible, make decisions based on research into both the literature of risk and knowledge of specific trends and circumstances in their state. If necessary, they commission research to obtain data to help them understand where rule revision is necessary. In addition, they take steps, where necessary, to support the implementation and enforcement of their rules.

The "literature of risk" includes both specific research studies and also – of even greater importance, perhaps – systems of standards, developed by experts with knowledge of the research as well as implications for practice. In the examples presented in this report, mention has been made of two such systems – the National Standards and the standards implied in the various environment rating scales – as well as national accreditation systems.

The National Standards clearly address health and safety issues. As an abridged version of *Caring for Our Children*, with selections from the National Standards chosen on the basis of research into risks in child care, *Stepping Stones* is an appropriate guide to the analysis and formulation of licensing rules. While Oklahoma and Tennessee report consulting the National Standards, only a detailed comparison based on specific criteria, as carried out by Patricia Cole in Indiana, can determine the extent to which a set of rules meets those standards.

Once such a comparison is made, however, it is still important to exercise judgment and consider the enforcement context. In describing her project, Cole cautions that it is not necessary to include all *Stepping Stones* in the licensing rule. She also warned against individual sections of rules that are expensive to administer and draw resources from other areas and yet, do not substantially reduce risks to children (personal communication). Tennessee informants said that they eliminated some sections in order to focus on key health and safety and basic quality areas (Questionnaire).

Even so, careful comparison provides important benchmark information. In fact, when asked what advice she might have for states whose agencies face liability issues (hers does not), Anne Turner, licensing director in Tennessee, said that they should

- Make sure their rules comply with something like *Stepping Stones* to confirm that they address the most fundamental health and safety issues; and

- Have enough licensing staff to monitor and take action when non-compliance is discovered (personal communication).

As second safeguard is comparison with the standards implied in rating scales. Both Oklahoma and Tennessee report carrying out such comparisons (and it is likely that Indiana has also completed such an exercise). While such comparisons are valuable – as

are comparisons between licensing requirements and accreditation standards – they may shift the focus away from health and safety issues that are primary concern in licensing requirements.

Still, the fact that a licensing rule has been so closely examined suggests that it addresses the key risks in child care settings as determined on a national level. Furthermore, when licensing systems are well-resourced and have broad support, as in states like Oklahoma and Tennessee, it is reasonable to assume that their rules are comprehensive and that sections addressing potential risks have not been omitted purely because of public pressure or financial constraints.

Finally, when assessing rules, it is important to consider their context. In particular, when a rule seems deficient in one area, such as sanitation, it may be that that area falls under the jurisdiction of another rule and another department, such as health. Further, all rules are written within a specific legal framework that includes both statutes and rules governing the rule-making process, and all are subject to advice from legal counsel and style guides that determine the format and many features of the language of specific rules.

In summary, for reasons suggested above, it appears that Oklahoma and Tennessee currently have rules that are likely to reduce risks to children, while reported circumstantial factors and the need to complete rule revisions mean that Indiana has the potential to develop rules that reduce risk.

What specific sections of these rules are important?

The relative importance of specific sections of a licensing rule depends, in part, on how importance is defined and the intended purpose of the sections in question. For purposes of this discussion, sections focusing on two distinctly different areas, supervision and playgrounds, will be analyzed in detail below. These two areas have been chosen since rules in both have the potential to reduced risks to children. On the other hand, they present rule-writers with different problems and hence, invite different solutions. As noted above, whatever the topic, rule-writing is subject to many contextual factors that help to shape the rules that ultimately emerge.

Supervision

By almost all measures, supervision is a key element in reducing the risksof harm to children. Its importance is emphasized in the literature. In *Caring for Our Children*, it is described as "basic to the prevention of harm" (Rationale, Standard 2.028).

In discussion above, deficiencies in supervision emerged as a leading indirect cause of many types of injury. In their study of injury deaths in Alaska and Louisiana, Landen et al. (2003) conclude that "the large proportion [of injury deaths] attributed to a lack of appropriate supervision provides support for prevention programs that focus on improving supervision of children, especially in settings where pedestrian or drowning injuries can occur" (p. 331).

In responses to the Questionnaire, supervision was most often included it among the top three areas of risk in child care settings. Rules related to supervision were rated as the most effective in reducing the risk of harm to children by both Tennessee and Indiana (with reference in Indiana to supervision in homes) (Questionnaire).

Deficiencies in supervision – including both a lack of supervision and ineffective supervision – stand as an indirect cause of many types of harm that may be relatively easy to define. The fact that a child has fallen, is lost or forgotten, or a child who is poisoned by ingesting a chemical unobserved by staff can easily be described in concrete, specific terms. Rules can be formulated to address the specific facts, regulating the height of play equipment, the need for attendance checks or the safe storage of dangerous chemicals.

In each case, however, the indirect cause of harm to children may be a deficiency in supervision and yet, supervision itself is a difficult concept to grasp and may mean something different in different circumstances. Landen et al. (2003) write that in attempting to define "inadequate supervision," they considered using the legal concept of "neglect" and, in the end, settled on a concept that "relies on judgments about the "reasonableness" of supervision provided" (p. 331). Such difficulties illustrate why rules to ensure effective supervision are difficult to write.

The following analyses point up differences in approaches.

Oklahoma

Oklahoma's child care center rule includes one of the clearest and most comprehensive treatments of supervision. References to supervision occur at many points in the rule. It is defined at the outset in Section 2, "Definitions," and treated more comprehensively in Section 9.1, "Supervision of children." This section includes Oklahoma's requirements for staff:child ratios and group size. Sections 25.4 "Water activities," 25.5 "Rest-time," and 25.6 "Night-time care" also include sub-sections on supervision. Miscellaneous references occur elsewhere in the rule, including Sections 26, "Behavior and Guidance" and 29, "Transportation."

The initial definition clarifies exactly what is expected when the word "supervision" appears in the rule. The frequency with which it is mentioned reminds providers that effective supervision is expected throughout the child care day. Such specificity supports both technical assistance and training activities and enforcement.

Indiana

Indiana's child care center rule similarly begins with a definition 470 IAC 3-4.7-1 "General definitions" (24) and includes a section on Child/staff ratios and supervision (48). Supervision is also mentioned in subsequent sections related to "Child grouping" (49), "Rest periods" (53), "Water play areas" (70), "Transportation in child care center owned or leased vehicles" (72), "General meal guidelines" (79), "Home style food service" (80), "Ill child procedures" (87), "Communicable disease" (89), and "Toddler feeding" (140).

By contrast, references to supervision in *Indiana Rule 1.1. Child Care Homes* are relatively brief. Even so, it was identified as one of Indiana's most effective tools for reducing the risk of harm to children (Questionnaire). Supervision is not defined, but section 36.5 (2) under the heading "Child to staff ratio" clearly states that "Children shall not be left unattended and shall be supervised at all times." Supervision or the need for children to be attended is required again in relation to swimming (39 (a)) and transportation (40 (d))

Tennessee

Tennessee's current rule for child care centers was also cited as one of the state's most effective rules for reducing harm to children (Questionnaire). It includes a statement of the purpose of licensing that includes a reference to supervision (1240-4-3-.01 Introduction). In Section 6 (7) (k) (ii) "lack of proper supervision" is one of the violations that constitutes "serious" non-compliance and serves as grounds for notifying parents and funding sources in a formal notice. In a lengthy section (7(4)) under the heading "Supervision and Grouping of Children," supervision is required at all times and defined (a) and while swimming (4 (m)) and during night time care (5). The rule also includes a detailed section on "Transportation (10) that includes a sub-section on supervision (5).

Tennessee is in the process of making major revisions to its child care center rule. According to a draft of August 2004, supervision is included in the definitions section of the proposed rule and the rule will include a major section under the heading "Supervision." Sub-section (1) (a) to (m) addresses supervision issues. Other sub-sections include rules for naptime supervision (4) playground supervision (5), transportation supervision (6) and supervision on field trips (7). Other issues considered in the section relate to ratios and group size.

These changes suggest that Tennessee is exploring the benefits of defining supervision at the outset and consolidating rules related to supervision in one section. In this proposed draft, the reference to lack of proper supervision as grounds for notification appears to have been dropped. In the revised version, these grounds are not specified (5 (6) (h)).

Playgrounds

Rules to prevent harm to children on playgrounds present different challenges. Playgrounds contain many types of equipment and include a variety of situations that pose risk to children. For example, children could cut themselves on cracks or protrusions, be strangled by clothing caught in crevices or protrusions, or fall from climbers or swings. As a result, rules related to playground safety must address a number of very different issues and playground safety cannot easily be captured in a single definition. In addition, because rules to ensure playground safety must address issues such as fall zones and resilient surfacing that require specific expertise to interpret, they are more likely to refer to authorities outside the licensing agency.

The importance of playground rules is captured in statistics. As noted earlier in this report, by almost all measures, falls are the leading cause of injury to children. Phelan et al. (2001) report that fall-related injuries accounted for the greatest proportion of injury visits to emergency departments during their six-year study period (1992-1997). Of those just over 5% or an average of 153,425 visits annually resulted from playground falls (p. 229). Further, the most frequent location of a playground fall was the school (including daycare) (p. 230). In fact, these researchers consider theirs to be "the first national survey to identify the school (including daycare) as the primary location of playground injuries" although they note that other studies have shown that playground falls are a "leading mechanism of injury in daycare centers." Two areas of greatest risk appear to be falls from heights (swings, climbers and slides) and falls to surfaces that lack impact-absorbing surfaces (p. 232). Other research documenting playground injuries has been summarized by the Harborview Injury Prevention and Research Center (n.d.).

Effective playground rules are important, not only because of the high numbers of playground injuries, but also because many playgrounds have features that make them unsafe for children. For example, the National Program for Playground Safety has carried out two rounds of research, producing national and state-specific "report cards" each time, rating the safety of America's playgrounds. All report cards are available on the web and provide a detailed assessment of all aspects of playground safety, including supervision and the condition of the playground and equipment.

In both 2000 and 2004, the national average for playground safety (general and at child care facilities) was C+. It may be of interest that the states mentioned in the study received scores as included in Table 4.

Table 4: Selected Playground Report Card Results

National Program for Playground Safety Report Card Results – Child Care		
	2000	**2004**
USA	**C+**	**C+**
Indiana	**C+**	**C+**
North Carolina	**C+**	**B+**
Oklahoma	**B+**	**B**
Tennessee	**B**	**C**
Washington	**C**	**C**

With these scores in mind, it may be helpful to turn to an assessment of specific rules.

Oklahoma

Oklahoma reported that its child care center rules related to playgrounds were revised in 1996-1997 and that they currently include requirements for fall zones and other safety features. They also said that licensors refer to resources from the Consumer Products Safety Commission (CPSC) when playground issues arise. They said they were not aware of any major playground incidents since that rule revision (Questionnaire).

Playground information in Oklahoma's child care center rule is consolidated in Section 22: "Outdoor safety and play equipment." That section includes sub-sections relating to play space (must permit supervision), surfaces (includes fall zones), playground safety, and outdoor play equipment.

Section 22 includes references to explanatory information elsewhere. With respect to surfacing, the term "unitary materials" is clarified in the definitions section (Section 2) and the rule itself requires that surface materials "meet the standard requirement for the Consumer Product Safety Commission" (22(b)(2)(A)(i)). More information about fall zones, including drawings illustrating fall zones in relation to specific equipment appears in a supplement to the rules.

Oklahoma's rule for homes includes information about outdoor play space but it is not consolidated as in the center rules and there is no mention of the CPSC.

Given the comments about the lack of incidents on playgrounds and the scores awarded to Oklahoma by the NPPS, it appears that Oklahoma has a relatively effective rule for its child care center playgrounds.

Indiana

Indiana has recently revised its child care center playground rule so that its NPPS scores are unrelated to the effectiveness of its new rule. When asked which rule appeared to be most effective in reducing the risk of harm to children, and which was the most effective step the agency had taken to reduce the risk of harm, Indiana cited its new requirement that playgrounds must meet CPSC guidelines. When asked what further steps it would like to take, it reported that it would like to require child care homes to meet some of the CPSC guidelines (Questionnaire).

Section 66 of Indiana's rule, "Playground and outdoor safety" begins with a statement that "The specific guidelines of the most current [CPSC handbook] … shall be used to determine compliance with the following safety rules." The rules that follow under that heading relate to equipment, surfacing, fall zones, maintenance and other playground features.

Section 67, "Critical height chart," again refers to the CPSC handbook, as well as manufacturers' directions, as guides to the depth of loose fill materials. Section 68, "Playground design," relates to the size and configuration of the playground, including its relation to traffic areas. Section 69, "Playground and outdoor environment," relates to the activities that occur on the playground which "shall be considered to be an outdoor classroom and an extension of the learning environment."

Indiana's rule for homes has a section on the outdoor play equipment and includes requirements for the size of the outdoor area but has not been revised, as noted in the Questionnaire.

Tennessee

Tennessee's current child care center rule includes a relatively brief section on Outdoor Play Equipment (08(3)). Within that section, sub-section (c) refers to the CPSC handbook "which shall be used for guidance on playground construction and maintenance." Sub-section (e) includes the information in parentheses that suggested surfacing materials can be found in Appendix E. Appendix E, "Playground Surfacing" is very long and includes a great deal of information referenced from the CPSC handbooks and the National Standards.

Tennessee's proposed rule includes a sub-section on playground supervision and there is a specific reference to the playground in relation to maintenance of ratios. The proposed rule also has a more extensive section on equipment and incorporates a chart identifying acceptable types and amounts of resilient surfacing materials. A note to the draft indicates that a recommendation to require compliance with the CPSC guidelines was implemented only in part since requiring all guidelines would be "prohibitively expensive" for most providers and "impossible" for many because of space limitations. This comment points up the dilemma faced by rule writers, as they balance what research says with what is possible and enforceable.

North Carolina

Given the research reported above with respect to improvements in North Carolina's child care centers playground rule, as well as the relatively high score received on the NPPS survey, it seemed appropriate to look more closely at North Carolina's rule.

Closer examination reveals, in fact that, in addition to sections of the type noted above, North Carolina's rule has additional features that may explain reports of positive results:

- Records of playground inspections must be documented monthly on a checklist provided by the licensing agency (0302(d)(5))

- The playground surface area must be checked weekly to assure that surface material is maintained to assure resiliency (0604(p))

- A required number of staff (depending on the size of the facility) must have at least four hours of training in playground safety, including playground hazards and supervision (0705(e)).

In other words, in addition to concerns about the physical features of the playground, North Carolina adds regular staff checks and documentation as well as specific staff training requirements that include training in relation to both hazards and supervision. It is noteworthy that deficiencies in supervision and training were identified at the outset of this report as indirect causes of risk to children.

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PART 5: RECOMMENDATIONS

What specific rules should Washington State emphasize in order to minimize risks to children?

Based on evidence from research and from practice elsewhere, Washington State should emphasize the following rules to minimize risks to children:

- **Rules related to supervision;**

  Deficiencies in supervision are the indirect cause of injury and other forms of harm in a wide range of areas. Strengthening rules related to supervision is therefore likely to reduce risk of harm from a number of sources. Consideration should also be given to strengthening rules in areas that affect supervision such as staff:child ratios, and the amount of space and equipment available for the children.

- **Rules related to provider education and training;**

  Deficiencies in provider education and training are the indirect cause of injury and other forms of harm in a wide range of areas. Strengthening rules these areas is therefore likely to reduce risk of harm from a number of sources. As far as possible, training should be targeted to areas of observed need (for example, areas of frequent or repeated non-compliance).

- **Rules in response to observed need**;

  Over time, observation and investigation, and data collection and tracking will reveal specific areas where additional rules are needed or where existing rules should be strengthened. Reasons for rule changes should be documented and supported with data.

- **Rules in response to findings from comparisons with established benchmarks**;

  In view of liability issues, in particular, it is important to ensure that rules are comprehensive and embody best practice as determined by experts in specific fields. To achieve that goal, Washington State should compare its rules to an established benchmark, such as *Stepping Stones*, and delete, revise or formulate rules based on the results.

- **Rules in response to trends in national and state data; and**

  Washington State should be aware of data on injuries, for example, collected at the national, state and other levels and strengthen its rules, where necessary, in light of that knowledge.

- **Rules in response to the literature and specific research findings.**

  Researchers are constantly providing new information, including information that should be reflected in rules and licensing practice. For example, the recent shift in terminology from “SIDS” to “safe sleep” may mean that some rules need to be reviewed or deleted and new ones substituted in their place.

What specific aspects of our licensing system should Washington State emphasize in order to minimize risks to children?

- **Planning and Development**

It is evident from the licensing systems analyzed for this report that the systems that seem to function most effectively are highly integrated with strengths in all areas. For example, in such systems, findings from licensing inspections and complaint investigations become the focus of the training area, and incentive programs are seen not only as provider reimbursement programs but also as sources of interim enforcement strategies and as vehicles for technical assistance and training.

It is recommended that Washington State assess the current structure and functions of its licensing unit and, where appropriate, take steps to ensure that all elements are equitably balanced and supportive of each other. For example, training specialists should collaborate with licensors to ensure that providers have access to training in areas where records show a high incidence of non-compliance or complaints.

It is recommended that Washington State further investigate the possibility of establishing an incentive program, which includes tiered reimbursement and/or a form of quality recognition. In considering this possibility, the State should explore the impact of such a program on all aspects of its licensing system, including its potential role in enforcement, and training and technical assistance as well as provider reimbursement. The State should also be mindful that, on the one hand, effective enforcement programs must be well-resourced and require significant expenditures, and on the other, they appear to have value and lead to positive results as shown in recent research.

- **Collaboration and Outreach**

It is also evident that exemplary licensing systems have links of varying degrees with many external organizations. They draw on expertise from universities, resource and referral agencies, non-profit organizations, and actively involve them in regulatory processes, for example, as providers of training, researchers or advisors during rule formulation.

It is recommended that Washington State examine its current links with external organizations to see if it is fully realizing their potential benefits. The State should also consider establishing other links, as appropriate. For example, the State might develop a relationship with the Harborview Injury Prevention and Research Center (HIPRC) in Seattle. HIPRC is a "Center of Excellence" or Injury Control Research Center (ICRC) funded by the US Centers for Disease Control (CDC). HIPRC might provide the State with valuable resources and advice related to injury prevention and control and might also carry out research on injuries in licensed child care settings. Since it is a collaborative effort between Harborview Medical Center and

the University of Washington Schools of Medicine and of Public Health and Community Medicine, a link with HIPRC has the potential to extend the State's associations even further. Additionally, the State might also consider establishing or strengthening links with area universities and with non-profit organizations, such as the SIDS Foundation of Washington, Washington State Child Death Review Program and the National Maternal and Child Health Center for Child Death Review, following the Michigan model described in this report.

- **Rule Formulation**

With a view to the next round of rule revisions, it is recommended that Washington State carry out or commission research on the effectiveness of its current rule and use findings to help shape future rule changes.

Given the significant burden of liability that Washington carries, it is more specifically recommended that Washington commission a systematic and documented comparison with a national benchmark, such as the National Standards as they are incorporated in *Stepping Stones,* to provide measurable evidence that Washington is taking steps to prevent harm to children in keeping with the advice of nationally recognized experts.

Distinctions, between Washington's rules and those of the other states discussed in this report, point to revisions that might make Washington's rules more effective. For example, "supervision" is mentioned from time to time throughout Washington's child care center rule, but it is not defined and no one section focuses on supervision issues. In fact, references to supervision are often subordinated to other topics, as illustrated in Section 5020: "How do I maintain a safe environment?" where (c) "Adult supervision at the exits" is grouped with requirements related to bells and alarms that may, in fact, undercut the importance of supervision. In contrast, the structure of Washington's child care homes rule, is similar to Oklahoma's child care center rule which is described elsewhere in this report as "clear and comprehensive." Both include a definition of supervision as well as a section devoted to the topic. Section 1360 of Washington's rule includes the heading, "What am I required to do to supervise children?" One major difference between both of Washington's rules and those of other states is that they are expressed in the first and second persons ("I" and "You") and use the verb "must." Rules in other states are written in the third person ("the caregiver" or "licensee," for example) and use the more formal "shall." Constant repetition of "you must" and especially "you must not" may seem oppressive to some providers.

When formulating rules, it is recommended that Washington State consult with its legal department and review rules from other states to ensure that Washington's rules are expressed as clearly as possible, in a format that helps providers understand what they are required to do to achieve compliance.

- **Technical Assistance and Training**

Two of the licensing systems explored for this study have well-established provider incentive programs within their licensing systems. As a result, they are able to offer providers two streams of technical assistance and training. In addition, the incentive program motivates providers to not only comply with licensing requirements, but also take advantage of available training opportunities. More research is needed to determine whether it is necessary to implement an incentive program to achieve these benefits.

It is recommended that Washington State ensure that providers have significant, ongoing training opportunities, as well as opportunities for technical assistance to help them achieve and maintain compliance with licensing requirements. Results should be tracked to determine whether training has reduced the incidence of injury, non-compliance, or substantiated complaints.

- **Provider Relations**

Both Oklahoma and Tennessee reported initiatives to encourage providers to be self-reliant and pro-active as self-enforcers of licensing requirements. Oklahoma offers providers free training in self-assessment and evaluation, and gives members of the state child care association the opportunity to self-report non-compliance, while Tennessee reports success with its voluntary suspension option. Again, these states may be building on the motivation provided by their incentive programs.

It is recommended that Washington State implement initiatives to encourage providers to be accountable for their own compliance. For example, the State might offer providers training in assessing their own programs by illustrating how to use licensing checklists between inspections to monitor their own compliance, possibly following Oklahoma's model. The State might also encourage self-reporting of non-compliance as is available in Oklahoma, or institute voluntary suspension as is an option in Tennessee.

- **Technology, Data Collection and Tracking**

Of the states surveyed, to date, only Indiana appears to have embarked on field data collection and the use of the Internet as a source of licensing information. Others are working towards those goals. Although at least one study suggests that the posting of information is beneficial, too little information was collected to make recommendations in this area.

On the other hand, it is clear from the state survey, in particular, that there are benefits from placing greater emphasis on data collection and tracking. In Michigan, where an excellent system was in place for many years, actions taken based on data analysis appear to have been successful in reducing rates of injury and non-compliance. In working with national and state child death review boards and, indeed, influencing their development,

Michigan tapped into larger pools of expertise that reportedly helped licensors refine both data collection and investigative techniques.

It is recommended that Washington State take steps to acquire and use data related to licensing functions, including data that tracks the effects of changes to their licensing system.

It is further recommended that Washington establish links with national or state-based organizations with similar goals and expertise in the field of data collection for the purpose of risk reduction. For example, the State might benefit from links to the National Maternal and Child Health Center for Child Death Review and/or the Washington State Child Death Review Program, following the Michigan model described in this report.

- **Investigations**

It is recommended that Washington State take steps to ensure that licensors are trained to carry out thorough investigations of serious incidents, complaints and significant non-compliance, using separate investigation checklists if necessary.

It is further recommended that Washington ensure that the results of all investigations are tracked and not only contribute to enforcement decisions, but also help shape technical assistance and training activities, as well as rule formulation. Data should be tracked over a period of years so that patterns emerge which can be used to guide enforcement strategies.

- **Licensor Education and Training**

Both Oklahoma and Tennessee require their licensors to have at least a bachelor's degree to qualify as a licensor and Oklahoma, in particular, offers its staff significant education and training opportunities.

It is recommended that Washington State ensure that pre-service qualifications for its licensors are as high as possible. Washington should also strengthen and support its licensing staff by offering licensors as many education and training opportunities as possible. For example, the State might follow Oklahoma's example and help licensors acquire advanced degrees in early care and education and related fields.

- **Licensor Workload and Inspections**

Both Oklahoma and Tennessee reported their licensors made more than one licensing inspection per year. Tennessee also reported that the agency had sufficient staff to achieve its goals. In contrast, Indiana reported making only one visit per year and a researcher commenting on its system in 2001, noted that the agency was significantly understaffed.

It is recommended that Washington State maintain staffing levels to permit licensors to visit facilities more than once a year, and often enough to ensure ongoing compliance with licensing requirements and provide technical assistance as necessary. For example, the State might consider following Tennessee's example and pro-rate the required number of inspections according to established criteria. In Washington's case, the number of inspections might be determined according to levels of non-compliance, numbers of substantiated complaints and other such indicators. The State might also build on Utah's model and use similar criteria to identify facilities that would receive a combination of announced and unannounced inspections to ensure opportunities for intensive technical assistance and follow-up.

APPENDIX A: LITERATURE REVIEW – INJURIES IN CHILD CARE 2000-2005

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